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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Dario NERI et al.

Serial No.: 09/194,356

Group Art Unit: 1642

Filed: September 2, 1999

Examiner: Alana M. HARRIS

For: ANTIBODIES TO THE ED-B DOMAIN FIBRONECTIN, THEIR CONSTRUCTION AND USES

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.56, 1.97 and 1.98**

Commissioner for Patents  
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Sir:

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- ☐ Under 37 C.F.R. § 1.97(b), no fee or statement is required for filing this information disclosure statement is filed:
- ☐ within three months of the filing date of a national application other than a CPA under § 1.53(d);
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Cited Materials

- ☐ Copies of materials listed but not attached were cited in benefit (35 U.S.C. § 120) ancestor application Serial No. \_\_\_\_\_, on Form 892 by the Examiner and/or Form 1449 by the applicant; see 37 C.F.R. § 1.98(d).
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Respectfully submitted,



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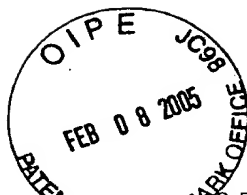
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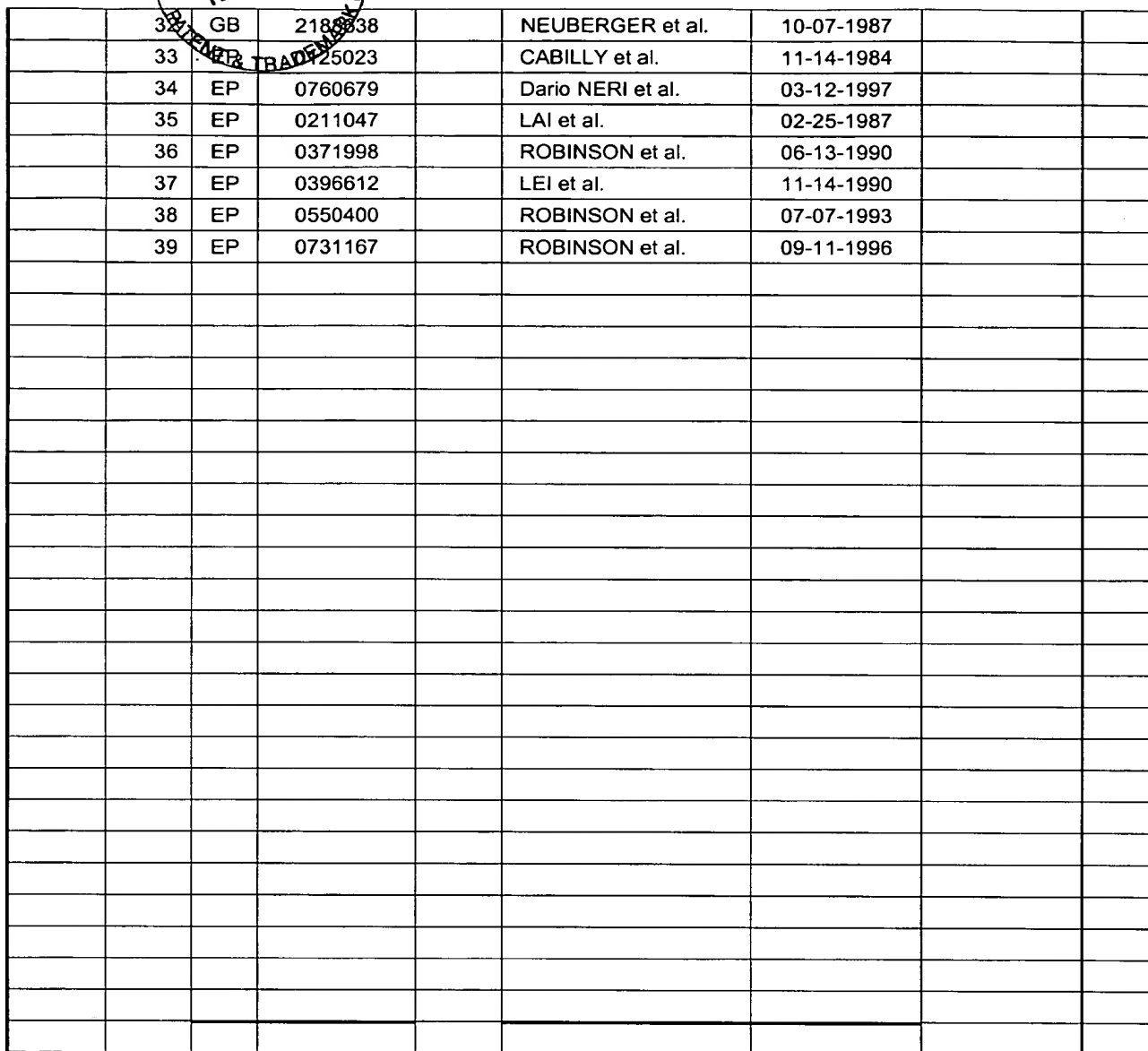
Application Number	09/194,356
Filing Date	September 2, 1999
First Named Inventor	Dario NERI et al.
Group Art Unit	1642
Examiner Name	Alana M. HARRIS
Attorney Docket Number	ELLIS-0003

### U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code <sup>2</sup> (if known)		
	1	5,734,025		KOMAI et al.	03-1998
	2	5,849,701		ROBERTS et al.	12-1998
	3	5,747,452		RUOSLAHTI et al.	05-1998
	4	5,837,813		RUOSLAHTI et al.	11-1998
	5	5,523,229		FEINBERG et al.	06-1996
	6	6,696,245		WINTER et al.	02-2004
	7	5,710,134		BOSSLET et al.	01-1998
	8	6,140,470		GAREN et al.	10-2000
	9	5,648,485		DOLPHIN et al.	07-15-1997
	10	5,817,776		GOODMAN et al.	10-06-1998
	11	5,831,088		DOLPHIN et al.	11-03-1998
	12	5,843,156		SLEPIAN et al.	12-01-1998
	13	5,877,289		THORPE et al.	03-02-1999
	14	5,913,884		TRAUNER et al.	06-22-1999
	15	5,976,535		FRITZBERG et al.	11-02-1999
	16	6,004,555		THORPE et al.	12-21-1999
	17	6,015,897		THEODORE et al.	01-18-2000
	18	6,036,955		THORPE et al.	03-14-2000
	19	6,051,230		THORPE et al.	04-18-2000
	20	6,093,399		THORPE et al.	07-25-2000

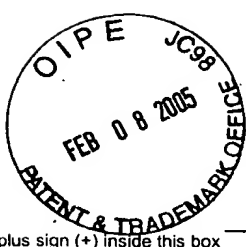
### FOREIGN PATENT DOCUMENTS

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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	21	WO	9958570		Dario NERI et al.	10-18-1999		
	22	WO	0162800		Dario NERI et al.	08-30-2001		
	23	JP	0276598		SEKIGUCHI et al.	03-15-1990		
	24	JP	4169195		SEKIGUCHI et al.	06-17-1992		
	25	WO	9745544		Medical Res Council	12-04-1997		
	26	WO	96/23816		CREIGHTON et al.	08-08-1996		
	27	EP	184187		KUDO et al.	06-11-1986		
	28	EP	239400		WINTER et al.	09-30-1987		
	29	EP	0120694		BOSS et al.	10-03-1984		
	30	WO	94/13804		HOLLIGER et al.	06-23-1994		
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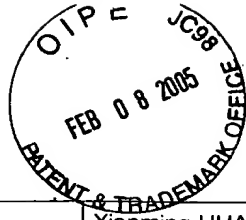
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Attorney Docket Number	ELLIS-0003

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	40	TOMOHIKO FUKUDA ET AL., "Mice lacking the EDB segment of fibronectin develop normally but exhibit reduced cell growth and fibronectin matrix assembly in vitro," Cancer Research, 1 October 2002, pages 5603-5610, vol. 62.	
	41	ANDREW GRIFFITHS ET AL., "Isolation of high affinity human antibodies directly from large synthetic repertoires," The EMBO Journal, 1994, pages 3245-3260, vol. 13, no. 14.	
	42	Dario NERI et al., "Targeting by affinity-matured recombinant antibody fragments of an angiogenesis associated fibronectin isoform", Nature Biotechnology, Vol. 15, November 1997, pages 1271-1275	
	43	Dario NERI et al., "Affinity reagents against tumour-associated extracellular molecules and newforming vessels," Advanced Drug Delivery Reviews, 6 April 1998, pages 43-52, vol. 31, no. 1-2, XP002124780, pages 46, right-hand column, page 49, left-hand column.	
	44	PINI, A., et al., "Design and use of a phage display library. Human antibodies with subnanomolar affinity against a marker of angiogenesis eluted from a two-dimensional gel," Journal of Biological Chemistry, August 21, 1998, pages 21769-21776, Vol. 273, no. 34, XP002124781.	
	45	VITI F. ET AL., "Increased Binding Affinity and Valence of Recombinant Antibody Fragments Lead to Improved Targeting of Tumoral Angiogenesis," Cancer Research, 15 January 1999, pp. 347-352, vol. 59, no. 2, XP002124782, the whole document.	
	46	R. FATTORUSSO ET AL., "NMR structure of the human oncofetal fibronectin ED-B domain, a specific marker for angiogenesis", 15 April 1999, Structure, pp. 381-390, vol. 7, no. 4, XP002124783.	
	47	TARLI L ET AL., "A high-affinity human antibody that targets tumoral blood vessels," Blood, 1 Jul 1999, pages 192-8, vol. 94, no. 1, XP002124784.	
	48	M. ZALUTSKY ET AL., "Labeling monoclonal antibodies and F(ab') <sub>2</sub> fragments with the alpha-particle-emitting nuclide astatine-211: preservation of immunoreactivity and in vivo localization," Proceedings of the National Academy of Sciences in the U.S.A., September 1989, vol. 86, no. 18, pages 7149-7153, XP002172060, Washington DC, USA, abstract.	
	49	S. LINDEGREN ET AL., "Chloramine-T in high-specific-activity radioiodination of antibodies using N-succinimidyl-3-(trimehtylstannyl)benzoate as an intermediate," Nuclear Medicine and Biology, October 1998, pages 659-665, vol. 25, no. 7, XP004149436, Oxford, GB, abstract.	
	50	M. BIRCHLER ET AL., "Selective targeting and photocoagulation of ocular angiogenesis mediated by a phage-derived human antibody fragment," Nature Biotechnology, October 1999, pages 984-988, vol. 17, no. 10, XP002172061, New York, NY, USA, the whole document.	
	51	Judah FOLKMAN, "Angiogenesis in cancer, vascular, rheumatoid and other disease", Nature Medicine, Vol. 1, Number 1, 1995, pages 27-31	
	52	Renata PASQUALINI et al., "α-Vintegrins as receptors for tumor targeting by circulating ligands", Nature Biotechnology, Vol. 15, June 1997, pages 542-546.	
	53	Michael S. O'REILLY et al., "Angiostatin induces and sustains dormancy of human primary tumors in mice", Nature Medicine, Vol. 12, Number 6, June 1996, pages 689-692	

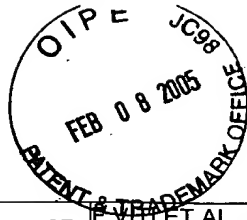


54	Xianming HUANG et al., "Tumor Infarction in Mice by Antibody-Directed Targeting of Tissue Factor to Tumor Vasculature", Science, Vol. 275, January 24, 1997, pages 547-550
55	Dario NERI et al., "Biophysical methods for the determination of antibody-antigen affinities", Tibtech (Vol. 14), December 1996, pages 465-470
56	E. Sally WARD et al., "Binding activities of a repertoire of single immunoglobulin variable domains secreted from <i>Escherichia coli</i> ", Nature, Vol. 341, No. 6242, October 12, 1989, pages 544-546.
57	James S. HUSTON, et al., "Protein engineering of antibody binding sites: Recovery of specific activity in an anti-digoxin single-chain Fv analogue produced in <i>Escherichia coli</i> ", Proc. Natl. Acad. Sci. USA, Vol. 85, August 1988, pages 5879-5883
58	Philipp HOLLIGER, et al., "Diabodies: Small bivalent and bispecific antibody fragments", Proc. Natl. Acad. Sci. USA, Vol. 90, July 1993, pages 6444-6448
59	Philipp HOLLIGER, et al., "Engineering bispecific antibodies", Current Opinion in Biotechnology, Vol. 4, No. 4, 1993, pages 446-449
60	Cyrus CHOTHIA, et al., "Canonical Structures for the Hypervariable Regions of Immunoglobulins", Journal of Molecular Biology, Vol. 196, No. 4, August 20, 1987, pages 901-917
61	D. NERI, et al., "Multipurpose High Sensitivity Luminescence Analyzer (LUANA): Use in Gel Electrophoresis", Biotechniques, Vol. 20, No. 4, April 1996, pages 708-712
62	Ian M. TOMLINSON, et al., "The Repertoire of Human Germline V <sub>H</sub> Sequence Reveals about Fifty Groups of V <sub>H</sub> Segments with Different Hypervariable Loops", Academic Press, Vol. 227, No. 3, October 5, 1992, pages 776-798
63	Johnathan P. L. COX, et al., "A directory of human germ-line V <sub>x</sub> segments reveals a strong bias in their usage", European Journal of Immunology 4/1994, pages 827-836
64	James D. MARKS, et al., "By-passing Immunization Human Antibodies from V-gene Libraries Displayed on Phage", Journal of Molecular Biology, Vol. 222, No. 3, December 5, 1991, pages 581-597
65	Hennie R. HOOGENBOOM, et al., "Multi-subunit proteins on the surface of filamentous phage: methodologies for displaying antibody (FAB) heavy and light chains", Nucleic Acids Research, Vol. 19, No. 15, August 11, 1991, pages 4133-4137
66	Dario NERI, et al., "Radioactive labeling of recombinant antibody fragments by phosphorylation using human casein kinase II and [ $\gamma$ - <sup>32</sup> P]-ATP, Nature Biotechnology, Vol. 14, No. 4, April 1996, pages 485-490
67	Robert SCHIER, et al., "Identification of functional and structural amino-acid residues by parsimonious mutagenesis" Gene, Vol. 169, (1996), No. 2, pages 147-155
68	Wataru ITO, et al., "Mutations in the Complementarity-determining Regions do not cause Differences in Free Energy during the Process of Formation of the Activated Complex between an Antibody and the Corresponding Protein Antigen", Journal of Molecular Biology, Vol. 248, No. 4, May 12, 1995, pages 729-732
69	C. HAMERS-CASTERMAN, et al., "Naturally occurring antibodies devoid of light chains", International Weekly Journal of Science, Vol. 363, NO. 6428, June 3, 1993, pages 446-448
70	U. JÖNSSON, et al., "Real-Time Biospecific Interaction Analysis Using Surface Plasmon Resonance and a Sensor Chip Technology", Biotechniques, Vol. 11, No. 5, November 1991, pages 620-627
71	Ahuva NISSIM, et al., "Antibody fragments from a 'single pot' phage display library as immunochemical reagents", The Embo Journal, Vol. 13, No. 3, February 1, 1994, pages 692-698
72	Alessandro PINI, et al., "Hierarchical affinity maturation of a phage library derived antibody for the selective removal of cytomegalovirus from plasma", Journal of Immunological Methods, Vol. 206, nos-1-2, 1997, pages 171-182
73	Daniel R. DEEVER, "A new non-isotopic detection system for immunoassays", Nature, Vol. 377, No. 6551, October 26, 1995, pages 758-760
74	Matsuura H., Takio K., Titani K., Greene T., Levery SB, Salyan ME, Hakomori S., J. Biol. Chem. 263, 3314-3322, "The oncofetal structure of human fibronectin defined by monoclonal antibody FDC-6. Unique structural requirement for the antigenic specificity provided by a glycosylhexapeptide", March 1988. Abstract Only





75	Zheng, M ET AL., Int. J. Pept. Protein Res., 43, 230-8, "Synthetic immunochemistry of glyconexapeptide analogues characteristic of oncofetal fibronectin. Solid-phase synthesis and antigenic activity"; March 1994. Abstract Only
76	Feinberg, RF, Kliman HJ, Bedian V, Monzon-Bordonaba F, Menzin AW, Wang CL; Am. J. Obstet. Gynecol 172, 1526-1536; "Monoclonal antibody X18A4 identifies an oncofetal fibronectin epitope distinct from the FDC-6 binding site"; May 1995. Abstract Only
77	Paul K. Schick, Carol M. Wojenski, Vickie D. Bennett, and Tamara Ivanova; "The Synthesis and Localization of Alternatively Spliced Fibronectin EIIIB in Resting and Thrombin-Treated Megakaryocytes"; Blood, Vol. 87, No. 5, March 1, 1996; pp. 1817-1823
78	Denise G. White, James W. Hall, David W. Brandli, Amy L. Gehris, and Vickie D. Bennett; "Chick Cartilage Fibronectin Differs in Structure from the Fibronectin in Limb Mesenchyme"; 1996; Exp. Cell Res. 224, pp. 391-402
79	MARIANI ET AL., "Tumor Targeting Potential of the Monoclonal AntibodyvBC-1 against Oncofetal Fibronectin in Nude Mice Bearing Human Tumor Implants," The American Cancer Society, 15 December 1997, pp. 2378-2384, vol. 80, no. 12.
80	DARIO NERI ET AL., "Antibodies from phage display libraries as immunochemical reagents," Methods in Molecular Biology, Immunochemical protocols, 2 <sup>nd</sup> ed., pp. 475-500, vol. 80.
81	BIRCHLER ET AL., "Infrared photodetection for the in vivo localisation of phage-derived antibodies directed against angiogenic markers," Journal of Immunological Methods, 1999, pages 239-248, vol. 231.
82	FREDRIK NILSSON ET AL., "Targeted Delivery of Tissue Factor to the ED-B Domain of Fibronectin, a Marker of Angiogenesis, Mediates the Infarction of Solid Tumors in Mice," Cancer Research, 15 January 2001, pages 711-716, vol. 61.
83	HALIN ET AL., "Antibody-based targeting of Angiogenesis," Critical Reviews in Therapeutic Drug Carriers Systems, 2001, pages 299-339, vol. 28, no. 3.
84	LEONARDO GIOVANNONI ET AL., "Isolation of anti-angiogenesis antibodies from a large combinatorial repertoire by colony filter screening," Nucleic Acids Research, 2001, vol. 9, no. 5, e27.
85	SALVATORE DEMARTI ET AL., "Selective targeting of tumour neovasculature by a radiohalogenated human antibody fragment specific for the ED-B domain of fibronectin," European Journal of Nuclear Medicine, April 2001, short communication, vol. 28, no. 4.
86	BARBARA CARNEMOLLA ET AL., "Enhancement of the antitumor properties of interleukin-2 by its targeted delivery to the tumor blood vessel extracellular matrix," Hemostasis, Thrombosis, and Vascular Biology, Blood, 1 March 2002, pages 1659-1665, vol. 99, no. 5.
87	HALIN ET AL., "Enhancement of the antitumor properties of interleukin-12 by its targeted delivery to the tumor blood vessel extracellular matrix," Nature Biotechnology, March 2002, pages 264-269, vol. 20.
88	C MARTY ET AL., "Cytotoxic targeting of F9 teratocarcinoma tumours with anti-ED-B fibronectin scFv antibody modified liposomes," British Journal of Cancer, 2002, pages 106-112, vol. 87, Cancer Research UK.
89	SAMU MELKKO ET AL., "An antibody-calmodulin fusion protein reveals a functional dependence between macromolecular isoelectric point and tumor targeting performance," Int. J. Radiation Oncology Biol. Phys., 2002, pages 1485-1490, vol. 54, no. 5.
90	PATRIZIA CASTELLANI ET AL., "Differentiation between High- and Low-Grade Astrocytoma Using a Human Recombinant Antibody to the Extra Domain-B of Fibronectin," American Journal of Pathology, November 2002, 1695-1700, vol. 161, no. 5, American Society for Investigative Pathology.
91	L BORSI ET AL., "Selective Targeting of Tumoral Vasculature: Comparison of Different Formats of an Antibody (L19) to the ED-B Domain of fibronectin," Int. J. Cancer, 2002, pages 75-85, vol. 102.
92	M SANTIMARIA ET AL., "Immunoscintigraphic Detection of the ED-B Domain of Fibronectin, a Marker of Angiogenesis, in Patients with Cancer," Clinical Cancer Research, February 2003, pages 571-579, vol. 9.
93	J SCHEUERMANN ET AL., "Discovery and investigation of lead compounds as binders to the extra-domain B of the angiogenesis marker, fibronectin," Drug Development Research, 2003, pages 268-282, vol. 58.
94	HALIN ET AL., "Synergistic therapeutic effects of a tumor targeting antibody fragment, fused to interleukin 12 and to tumor necrosis factor $\alpha$ ," Cancer Research, 15 June 2003, pages 3202-3210, vol. 63.
95	L BORSI ET AL., "Selective targeted delivery of TNF $\alpha$ to tumor blood vessels," Blood First Edition Paper, prepublished online 21 August 2003, American Society of Hematology, DOI 10.1182/blood-2003-04-1039.
96	M NICOLO ET AL., "Expression of Extradomain-B-containing Fibronectin in Subretinal Choroidal Neovascular Membranes," 2003, Elsevier Science Inc.



97	F VITI ET AL., "Recombinant antibodies for the selective targeting of tumor neovasculature," Current Opinion in Drug Discovery & Development, 2002, pages 204-213, vol. 5, no. 2.	
98	F VITI ET AL., "Phage display libraries as a source of tumour-targeting agents," Chimia, 2001, pages 206-211, vol. 55, ISSN 0009-4293, The Academic Polymer Scene in Switzerland.	
99	D NERI ET AL., Edited by P. RIVA, "New Approaches to Tumour Targeting," Cancer Radioimmunotherapy: Present and Future, Nuclear Medicine Department, Hospital "M. Bufalini," Cesena, Italy, Harwood academic publishers.	
100	M BIRCHLER ET AL., "Expression of the extra domain B of fibronectin, a marker of angiogenesis, in head and neck tumors," Laryngoscope, July 2003, pages 1231-1237, vol. 113.	
101	J PETERS ET AL., "Fibronectin Isoform Distribution in the Mouse: II. Differential Distribution of the Alternatively Spliced EIIIB, EIIIA, AND V Segments in the Adult Mouse," Cell Adhesion and Communication, 1996, pages 127-148, vol. 4, no. 2.	
102	Chevalier, X., et al., "Increased expression of Ed-B-Containing fibronectin (an embryonic isoform of fibronectin) in human osteoarthritic cartilage," British Journal of Rheumatology, Vol. 35(5), pages 407-415, (abstract only)	
103	Chevalier, X., et al., "Presence of ED-A containing Fibronectin in human articular cartilage from patients with osteoarthritis and rheumatoid arthritis," Journal of Rheumatology, Vol. 23(6), pages 1022-1030, June 1996	
104	Koukoulis, GK, et al., "Immunolocalization of cellular fibronectins in the normal liver, cirrhosis, and hepatocellular carcinoma," Ultrastructural pathology, Jan.-Feb. 1995, Vol. 19(1), pages 37-43	
105	Moyano, JV, et al., "Fibronectin type III5 repeat contains a novel cell adhesion sequence, KLDAPT, which binds activated $\alpha 4 \beta 1$ and $\alpha 4 \beta 7$ integrins," Journal of Biological Chemistry, Oct. 3, 1997, Vol. 272(40), pages 24832-24836	
106	Yu, J L, et al., "Fibronectin exposes different domains after adsorption to a heparinized and an unheparinized poly(vinyl chloride) surface," Biomaterial, March 1997, Vol. 18(56), pages 421-427	
107	Borsi, L., et al., "Preparation of phage antibodies to the ED-A domain of human fibronectin," Exp. Cell Res., May 1, 1998, Vol. 240(2), p. 244-251	
108	KACZMAREK, J ET AL., Int. J. Cancer, vol. 58, pages 11-16, 1994.	
109	KIRKHAM, PM ET AL., J. Mol. Biol., 1999, pages 909-915, vol. 285.	
110	MANABE, RI-ICHIROH ET AL., Journal of Cell Biology, vol. 139(1), pages 295-307, October 6, 1997.	
111	MARDON, H J ET AL., Journal of Cell Science, vol. 104, pages 783-792, 1993.	
112	MENZIN, A W et al. Cancer 1998, vol. 82, pages 152-158.	
113	PAOLELLA, GIOVANNI E TAL, Nucleic acids research, vol. 16(8), pages 3545-3557, 1988.	
114	STAFFA, A ET AL., The Journal of Biological Chemistry, 272(52), pages 33394-33401, December 1997.	
115	VARTIO, T ET AL., "Differential expression of the ED sequence-containing form of cellular fibronectin in embryonic and adult human tissues," Journal of cell science, vol. 88, pages 419-430, 1987.	
116	UEDA, YASUO ET AL., "Selective Distribution of Fibronectin to a Tumor-Cell Line," Cancer Letters, vol. 31, pages 261-265, 1986.	
117	G MARIANI ET AL., "A pilot pharmacokinetic and immunoscintigraphic study with the technetium-99m-labeled monoclonal antibody BC-1 directed against oncofetal fibronectin in patients with brain tumors," Cancer, 15 Dec 1997, pages 2484-9, vol. 80, suppl. 12, ISSN: 0008-543X, Journal code: CLZ, abstract, USA.	
118	CARNEMOLLA et al., Journal of Cell Biology, vol. 108, pages 1139-1148, 1989.	

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